Job Loss Analysis

ID No: 1339521 **Status:** Closed

Original Date: 05/May/2009
Last Review Date: 13/Feb/2009

Organization:

SBU: GLOBAL MANUFACTURING
BU: ALL
Work Type: Technical (Process Engineering)
Title (Work Activity): Hydrogen Plant Catalyst Survey
Site/Region:

Personal Protective Equipment (PPE)	Selected	Comments
Safety Shoes	Y	
Hard Hat	Y	
Safety Glasses	Y	
Fire Resistant Clothing	Y	
Face Shields	Y	
Hearing Protection	Y	
Goggles	Y	
Gloves	Y	
Personal Gas Monitor	Y	H2S (unless alternative monitoring plan)
Additional Task Specific PPE		
Other		

Reviewers

Reviewers Name	Position	Date Approved
Johansen, Michelle L (MLMJ)	Manager	05/May/2009
Ready, Ken S (KRDK)	Manager	04/Nov/2008

Development Team

Development Team Member Name	Primary Contact	Position
Hafer, Roger L. (RHFT)	Y	Lead
Evans, Luke (LUEV)	N	Engineer
Grubb, Rick K. (GRUB)	N	Subject Matter Expert
Moore, Brad (BMJW)	N	Lead
Mullek, Greg A. (GMUL)	N	Lead
Palmer, Joe W. (JPNB)	N	Engineer

Job Steps

No	Job Steps	Potential Hazard	Critical Actions
1	Prepare for catalyst survey (1 day – 1 week before survey).	1. Resources not scheduled could lead to inaccurate data or rework. 2. Sending incorrect data to vendor could result in inaccurate assessments of catalyst performance resulting in premature catalyst replacement or extended downtime. 3. Using the incorrect equipment could lead to invalid results causing rework by performing a new catalyst survey. 4. Sample stations could be plugged causing delays that could invalidate the survey results causing additional surveys to be completed.	1. Communicate to Operations and the Laboratory the date the catalyst survey will be taking place so resources will be available to complete the survey in a timely manner. 2. Prepare data sheets that will be sent to vendor for analysis and verify PI tags that will be utilized. 3. Gather and inspect materials: - Digital pressure gages (0-500 & 0-3000). - Sample bladders- ensure that the sample location tags are attached to the appropriate bladder. The same bladder is used to collect the corresponding sample each survey. - Appropriate fittings. 4. Ask Operations to verify sample stations are working properly and are not plugged.
2	Perform Catalyst Survey.	1. Injury due to process release. 2. Large unit swings in reformer or feed rate during survey could invalidate results leading to inaccurate assessments of catalyst performance resulting in premature catalyst replacement or extended downtime. 3. Contaminated samples invalidate survey resulting in rework or inaccurate assessments of catalyst performance.	1. Obtain proper PPE to perform task. 2. Discuss with Operations about not making large moves during survey, if possible. Or ask them to notify you if large moves are required so the survey can be delayed / restarted. 3. Purge sample line prior to sample collection to ensure no moisture, liquid, or air is in the sample line. Also, purge the sample containers by filing and emptying 3 times to ensure representative samples are collected.
3	Submit samples to Main Laboratory.	1. Inaccurate survey results from hydrogen diffusion into sample container wall resulting in rework or inaccurate assessments of catalyst performance. 2. GC calibration could impact the accuracy of the results leading to inaccurate assessments of catalyst performance resulting in premature catalyst replacement or extended downtime. 3. Loss of sample during transportation to lab will require performing the survey over again.	1. Take samples to Lab immediately after completion of survey and notify GC technician. 2. Inform GC Technician of anticipated composition ranges for each sample: - Product Hydrogen: >95% H2. - Reformer outlet: 70% - 80% H2. - Feed: 0% - 50% H2. 3. Ensure samples are secure during transportation to lab.
4	Enter survey data into data sheet template and submit data to vendor and Hydrogen BIN leader for catalyst evaluation.	1. Incorrect PI data invalidates survey resulting in performing the survey again or inaccurate assessment of catalyst performance. 2. Inaccurate lab data invalidates survey resulting in performing the survey again or inaccurate assessment of catalyst performance.	1. Verify correct PI data is downloaded (i.e. date, time, tag number) 2. Review lab data for anomalies, i.e. normalize lab data for air contamination.
5	Report out of results from catalyst evaluation and post in GDW.	1. Results from current survey improperly documented and archived leading to incomplete historical data for future analysis.	1. Communicate results with Hydrogen plant stakeholders and post results in GDW.